Figure 1 COLT-1 gene targeting vector and the structure of the COLIA1 targeted locus

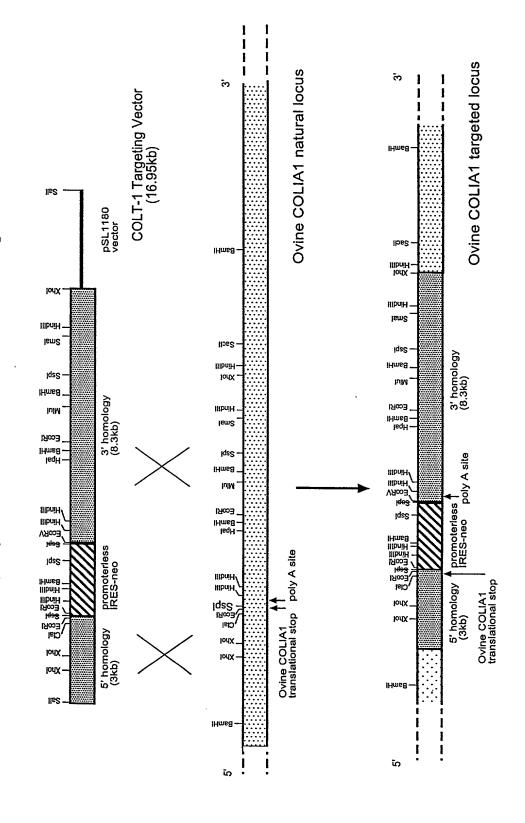
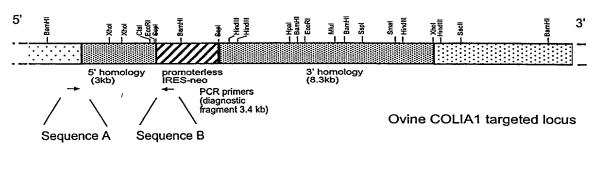
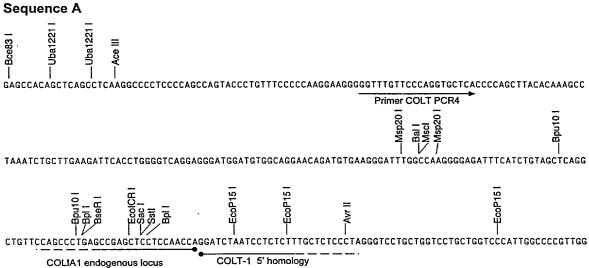


Figure 2. PCR screening strategy





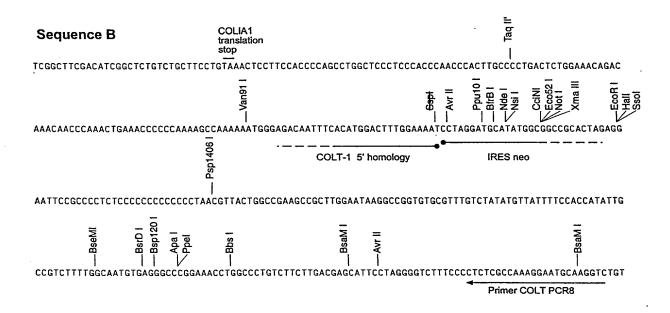


Figure 3. PCR screen of COLT-1 PDFF2 transfectants

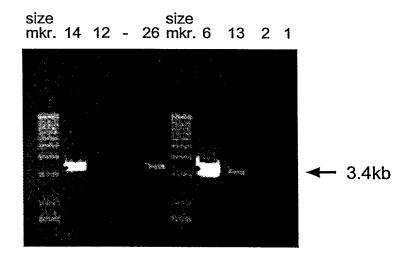


Figure 4. Sequence analysis at 5' junction of targeted locus

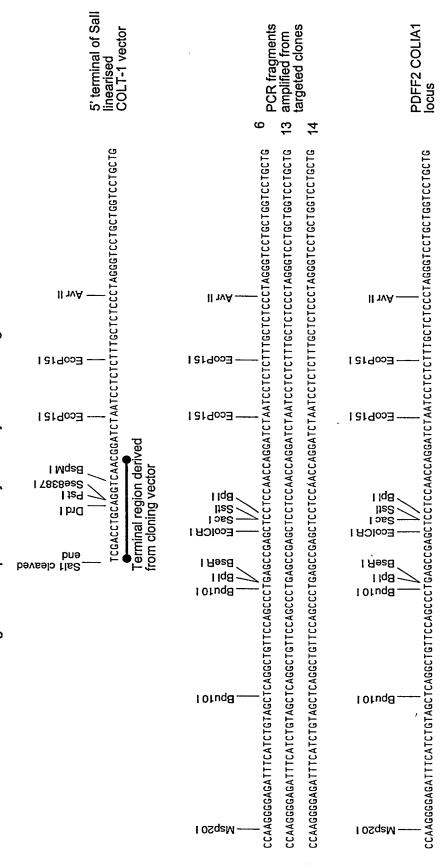


Figure 5. Construction of COLT-2 Transgene placement vector

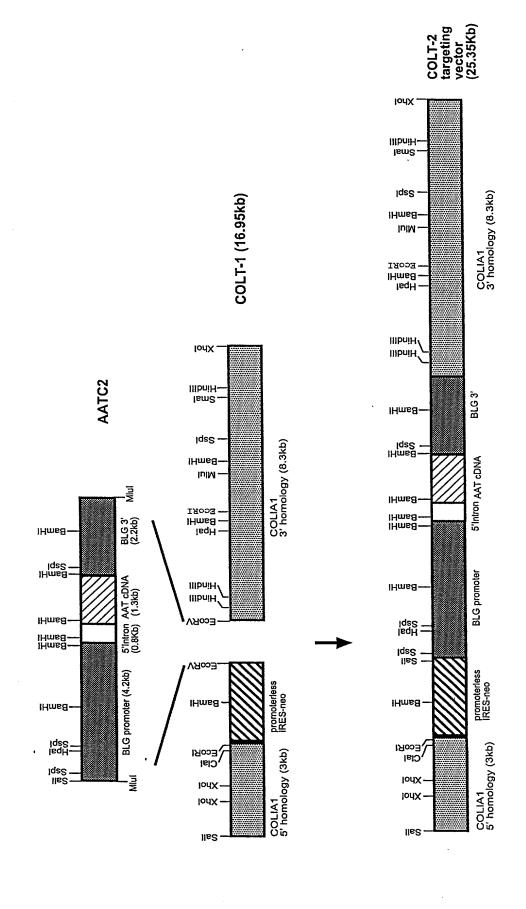
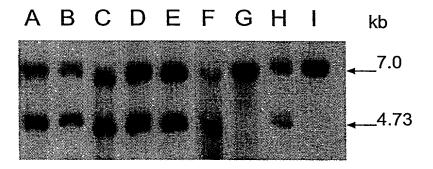


Figure 6. Southern analysis of gene targeted lambs



Key to lanes

- COLT1 targeted lambs (nuclear transfer from cell clone PDCOL6) A. live lamb born from ewe 941235
- B. stillborn lamb from ewe 9600356
- C. live lamb born from ewe 950030
- stillborn lamb from ewe 941053.

COLT 2 targeted lambs

(nuclear transfer from cell clone PDCAAT90)
E. stillborn lamb from ewe NZ1418

- F. live lamb born from ewe 941026
- G.
- wild type lamb cell clone PDCAAT90 Η
- ١. non transfected PDFF2 cells

Figure 7. Structure of the COLT-1 and COLT-2 targeted loci

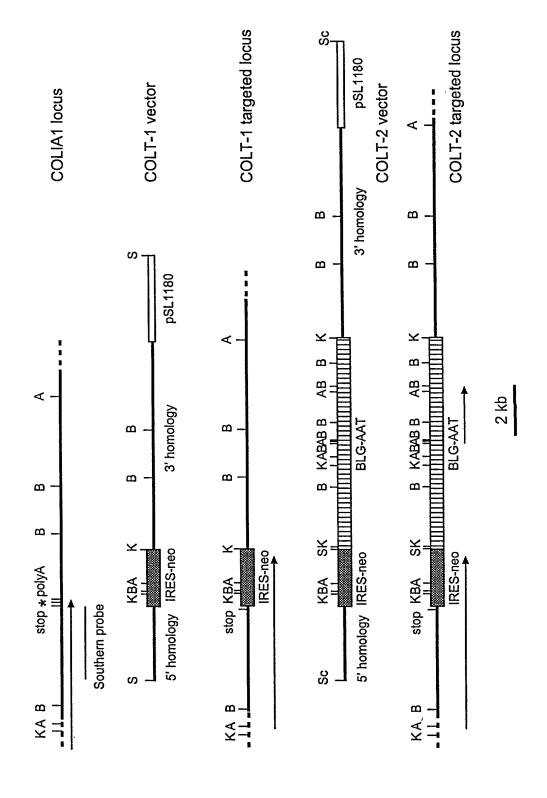


Figure 8. Southern analysis of COLT-2 transfected (PDCAAT) cell clones

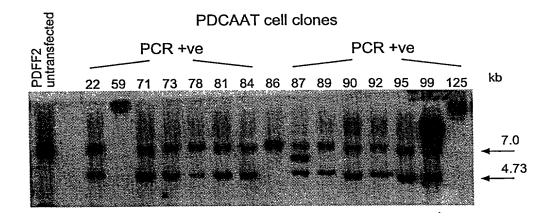


Figure 9. Northern analysis of COLT-2 targeted (PDCAAT) cell clones

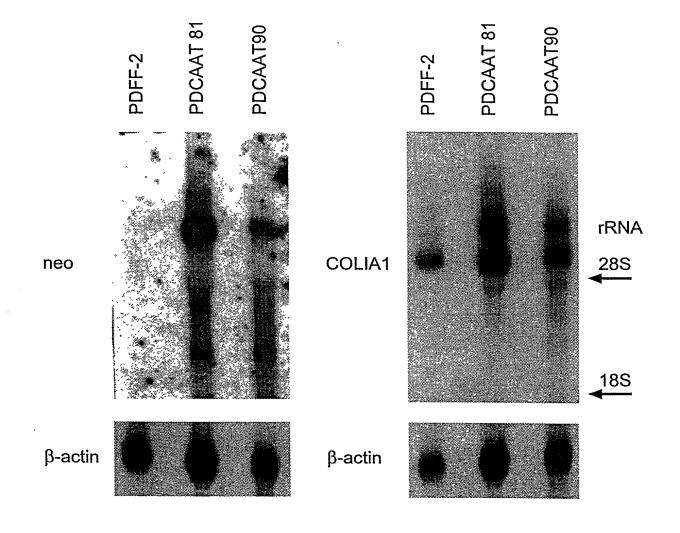


Figure 10. Northern analysis of primary ovine mammary cells in culture

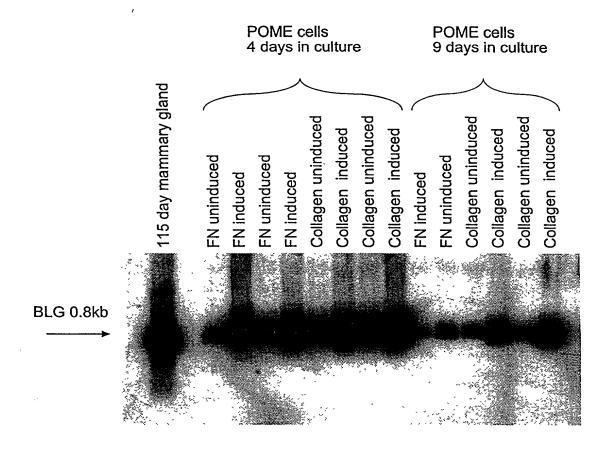


Figure 11. Ovine beta lactoglobulin targeting vector BLAT-3

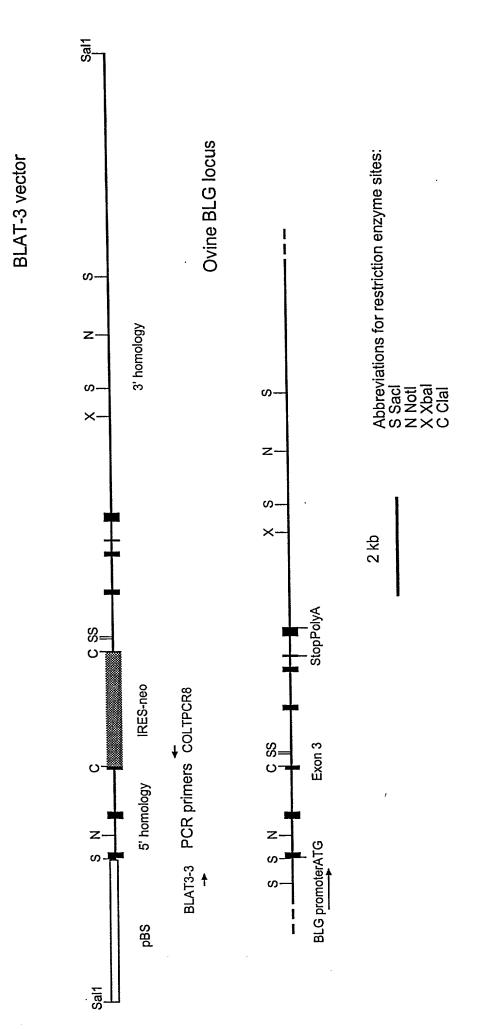


Figure 12. PCR analysis of BLAT-3 transfected POME cell clones

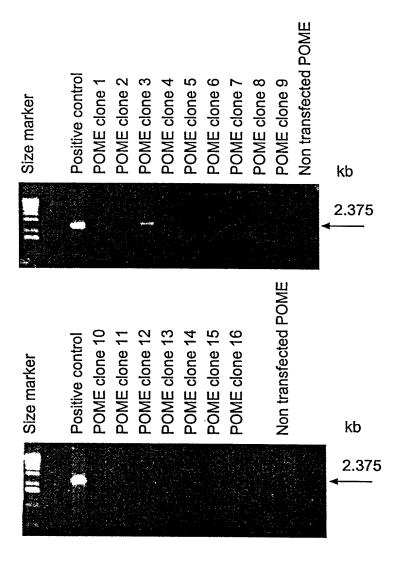


Figure 13. Promoter-trap Knockout Vector for Porcine α -1,3-Galactosyltransferase Gene

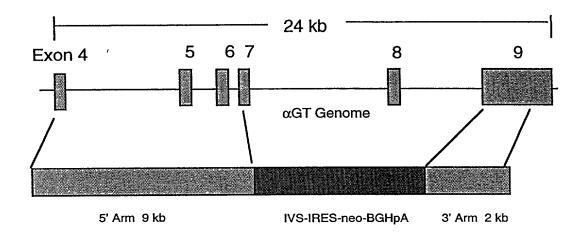


Figure 14. PCR Screening and DNA Sequencing of α GT Knockout clones

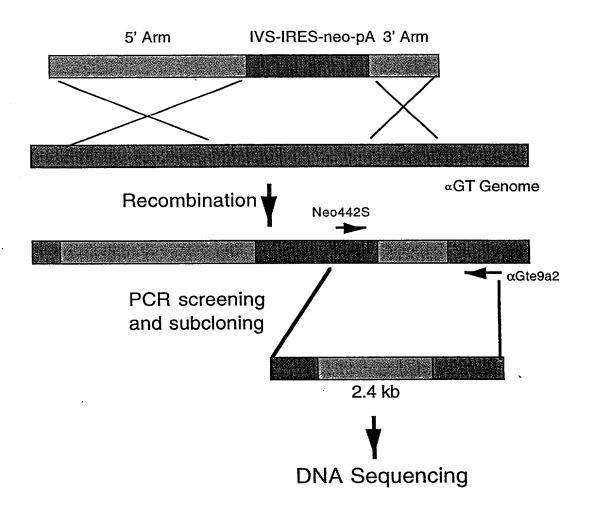


Figure 15. Sequence analysis over 3' junction region of PCR fragment amplified from porcine α -1,3GT targeted locus

3' arm of α -1,3GT targeting vector

Bacterial plasmid sequence

Sequence of porcine α -1,3GT targeting vectors pPL501 and 502 at 3' end of 3' homologous arm

... GACCCAGTCCTCATGACTAAACAGCAAGGGCGAATTCCTAGAAGATCTCCTAGAGTTAACACTGGCCGTCGTTTTACCGGTCCG...

Region present within targeting vector

Region unique to α-1,3GT locus

... GACCCAGTCCTCATGACTAAACAGCTTTTCAATCCCTTTCTCTAAGAAAAGCTATGAGATCTTACATGTAATTTAAAGTTAAGCAGTTTGGTGT

Sequence of PCR fragments amplified from each of four

cell clones

AAAGGAAGTTAGGAGGCAATATTTACATCTGCAGGTATGTGATATACTTTTGCTTGTGTTCCAGTTTAGGTCATTTGTGTGCATTTTCAAATGA

TTTACTTGAAGAGCCATTGCACTGACTTGATGTTCAGCACGATGGGCT

primer alpha-Gte9a2

Figure 16. Poly A-trap Bovine BLG Knockout Vector

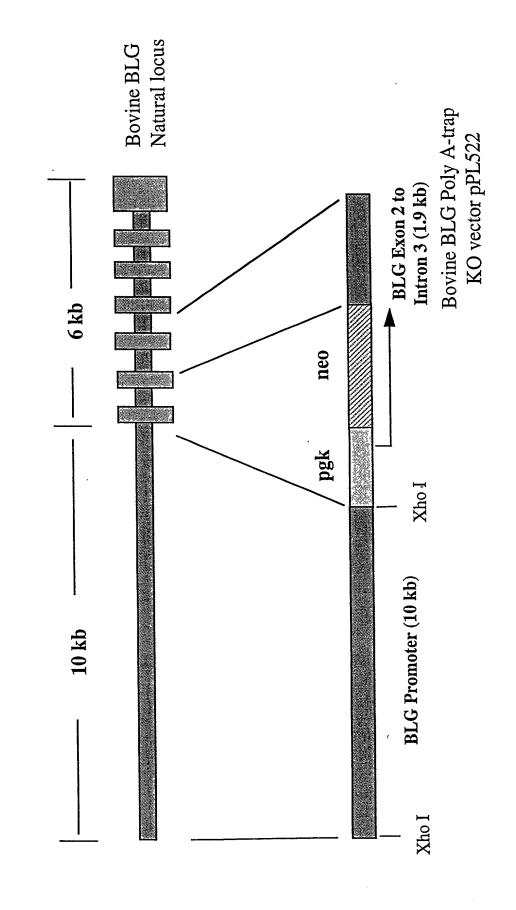


Figure 17. PCR Screening and DNA Sequencing of BLG Knockout clones

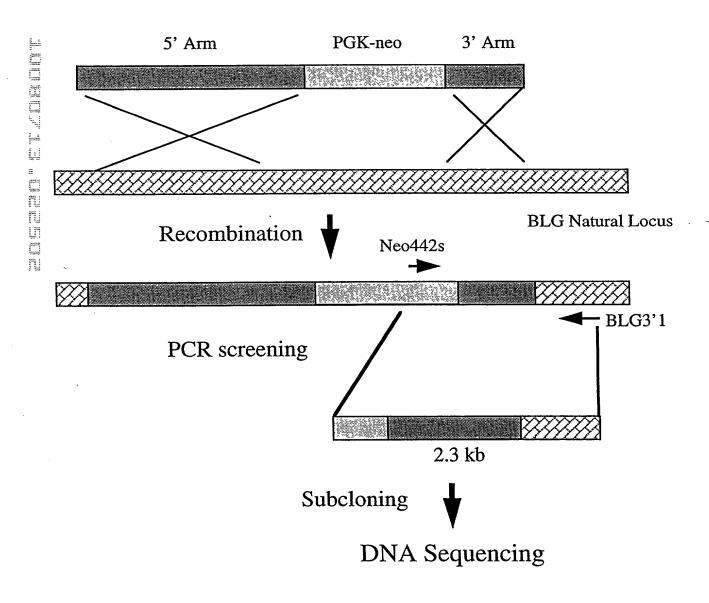


Figure 18. Sequence analysis over 3' junction region of PCR fragment amplified from bovine BLG targeted locus

3' arm of BLG targeting vector

Bacterial plasmid sequence

Sequence of bovine BLG targeting vector pPL522 at 3' end of 3' homologous arm

Region present within targeting vector

Region unique to BLG locus

... AGGGCGGCCTCAGACTCAGTGGTGTTCCCAAGTCCAGGAGGTGGTGGAGGGTCCCTGGCGGATCCAGAGTTGGGCTTCCAGAGTGA

GGGCTTCCTGGGCCCCATGTGCCTGGCAGTGGCAGGGGAAGGGGCCACACCATTTTGGGGCTGGGGGATGCCAGAGGGCGCTCCCCAC

Sequence of PCR fragments amplified from each of three cell clones

CCCGTCCTCACCAAGTGGTGACCCCCGGGGGAGCCCCGCTGGTTGTGGGGGGTGCTGGGGGGCTGACCAGAAACCCCCCTCCTGCTGGAACT

CACTTTCCTCCCGTCTTGATCTCTTCCAGCCTTGAATGAGAACAAAGTCCTTGTGCTGG

Primer BLG3'1